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AMSAT NEWS SERVICE
ANS-080

The AMSAT News Service bulletins are a free, weekly news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS publishes news related to Amateur Radio in Space including reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

The news feed on http://www.amsat.org publishes news of Amateur Radio in Space as soon as our volunteers can post it.

Please send any amateur satellite news or reports to:
ans-editor at amsat.org.

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ANS-080 AMSAT News Service Weekly Bulletins

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  From AMSAT HQ Kensington, MD.
March 20, 2016
To All RADIO AMATEURS
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AMSAT Forum Speakers at Dayton

The AMSAT forum will be Saturday morning from 11:15 a.m. through 1:30 p.m. in Forum Room 5. See the commercial vendor layout map in the Hamvention program or the Hamvention website for the location of Forum Room 5 (same as the last few years).

The following speakers will be presenting at the AMSAT Forum:

Moderator: Mark Hammond, N8MH

"AMSAT Status Report" Barry Baines, WD4ASW, AMSAT-NA President, will highlight recent activities within AMSAT and discuss some of our challenges, accomplishments, projects, and any late breaking news.

"AMSAT-NA Satellite Program" Jerry Buxton, N0JY, AMSAT-NA Engineering Vice President, will review the upcoming launches of four Fox spacecraft and exciting new engineering developments.

"AMSAT's HEO and GSO Plans" Bob McGwier, N4HY, AMSAT-NA Director, will discuss AMSAT-NA opportunities for High Earth Orbit and Geo-Synchronous Orbit satellites.

"AMSAT Satellite Operations" Drew Glasbrenner, KO4MA, AMSAT-NA Operations

Vice President, will survey the current operational amateur satellites, as well as those planned for launch in the next year.

"ARISS Report 2016" Frank Bauer, KA3HDO, AMSAT-NA Vice President for Human Spaceflight, will discuss ARISS developments & operation on the International Space Station.

"Teaching STEM Using the Fox Satellites" Joe Spier, K6WAO, AMSAT-NA Educational Relations Vice President, will explain how the Fox MEMS gyroscopes, radiation experiments, and cameras will be used to teach Science, Technology, Engineering, and Math (STEM).

[ANS thanks Steve, N9IP, for the above information]

Just-Launched ISS Expedition 47/48 Crew Increment Includes Two Radio Amateurs

The Expedition 47/48 crew increment of Astronaut Jeff Williams, KD5TVQ, and Cosmonauts Oleg Skripochka, RN3FU, and Alexey Ovchinin, is on its way to the International Space Station (ISS). Their Soyuz TMA-20M launched from the Baikonur Cosmodrome in Kazakhstan on March 18 at 2126 UTC. The trio now is safely in orbit.

“During their 6-month mission, the expedition crew members will facilitate approximately 250 research investigations and technology demonstrations not possible on Earth,” NASA said. “Science conducted also will enable future long-duration human and robotic exploration into deep space and on the agency’s journey to Mars.”

Williams, Skripochka, and Ovchinin will join Expedition 47 Commander Tim Kopra, KE5UDN, European Space Agency astronaut Tim Peake, KG5BVI/GB1SS, and cosmonaut Yuri Malenchenko, RK3DUP. Williams will take command of the station on June 4 for Expedition 48. The three will return to Earth in early September.

This mission marks Williams’ fourth spaceflight and will be his third long-duration stay on the orbiting laboratory — a first for an American. It’s also his first time back to the ISS since its completion in 2011. By the time his duty tour ends in September, Williams will become the new American record holder for cumulative days in space — 534 — surpassing Expedition 46 Commander Scott Kelly, who wrapped up his 1-year mission on March 1.

[ANS thanks ARRL for the above information]

UK Student Balloon Crosses Pacific

On Thursday, March 17 the UBSEDS14 balloon, launched by University of Bristol students, had successfully crossed the Pacific and was above Arizona, having

traveled over 24,500 km since launch. By March 19 the balloon had crossed the
United States and was headed out across the Atlantic Ocean.

The University of Bristol Students for the Exploration and Development of Space
(UBSEDS) launched their balloon on Monday, March 8. Powered by a single AA
Lithium Energiser Battery (LR91) the balloon has been transmitting about 5dBm of
Contestia 16/1000 on 434.600 MHz USB at 4 minute intervals as well as APRS
during its flight at an altitude of about 11,000m.

The balloon uses the error-correcting Contestia 16/1000 mode on 434.6MHz USB.

The transmission power on this band was measured to be +5dBm on a similar board,
which is well below the +10dBm limit for ISM band operation. Each packet was
preceded by 10 seconds of 1Hz pips for manual alignment and a RSID tone for
automatic alignment with suitable software (dl-fldigi for example). For many
countries the balloon transmits APRS packets on local frequencies. In particular
this is 144.8MHz in Europe, 144.66MHz in Japan and 144.39MHz in North America.

The balloon has a diameter of 1.5m and the payload weighs just 21.3 grams.
Despite the weight constraints the team have managed to employ sophisticated
Geofencing technology to prevent the balloon transmitting when over certain
countries and also to select different APRS frequencies depending on the
territory being overflown.

UBSEDS14 information is available at
http://www.bristol-seds.co.uk/hab/flight/2016/03/07/ubseds14.html

UBSEDS14 balloon launch
http://www.southgatearc.org/news/2016/march/ubseds14_balloon_launches_today.htm

One of the students involved in the project is Richard Meadows M0SBU. He took
the amateur radio courses run by the Chelmsford Amateur Radio Society (CARS) at
Danbury in Essex. Further information on the courses is available from the CARS
Training Manager
Email: training2016 at g0mwt.org.uk
Web: http://g0mwt.org.uk/training

[ANS thanks AMSAT-UK for the above information]

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In addition to regular membership, AMSAT offers membership in the
President's Club. Members of the President's Club, as sustaining
donors to AMSAT Project Funds, will be eligible to receive addi-
tional benefits. Application forms are available from the AMSAT
Office.

Primary and secondary school students are eligible for membership
at one-half the standard yearly rate. Post-secondary school students
enrolled in at least half time status shall be eligible for the stu-
dent rate for a maximum of 6 post-secondary years in this status.
Contact Martha at the AMSAT Office for additional student membership
information.

73,
This week's ANS Editor,
Lee McLamb, KU4OS
ku4os at amsat dot org